Claims:

We claim:

1.   A method for transferring data over a network, the method comprising:

a decoder process determining parameters of a network connection, including one or more of current or predicted bandwidth and/or latency;

providing information regarding the determined parameters to an encoding process;

the encoding process receiving the information regarding the determined parameters;

the encoding process setting one or more of rank and prioritization of independent objects to be compressed by the encoding process based at least in part on the information regarding the determined parameters;

the encoding process generating and transmitting compressed objects at one or more of varying rates and varying amounts of compression based on said one or more of rank and prioritization of independent objects to be compressed.

2.   The method of claim 1,

wherein the encoding process generates varying amounts of compression utilizing a discrete wavelet transform.

3.   The method of claim 1,

wherein if the network parameters indicate that network bandwidth has increased and/or transfer latency has decreased, the encoder process generating and transmitting comprises performing at least one of 1) transmitting a greater number of compressed objects and/or 2) transmitting compressed objects with a reduced amount of compression;

wherein if the network parameters indicate that network bandwidth has decreased and/or transfer latency has increased, the encoder process generating and transmitting comprises performing at least one of 1) transmitting a lesser number of compressed objects and/or 2) transmitting compressed objects with a greater amount of compression.

4.   The method of claim 1,

wherein the decoder process determines parameters of the network connection based at least one prior transmission of the encoding process to the decoding process.

5.   The method of claim 1,

wherein the decoder process determines parameters of the network connection based at least one prior transmission of each of a plurality of encoding processes to the decoding process.

6.   The method of claim 1,

wherein the network is an Internet Protocol (IP) network.

7.   A method for performing an encode and decode of video data for transport over computer networks, the method comprising:

a decoder process determining parameters of a network connection, including one or more of current or predicted bandwidth and/or latency;

providing information regarding the determined parameters to the encoding process;

the encoding process receiving the information regarding the determined parameters;

the encoding process setting one or more of rank and prioritization of independent objects to be compressed by the encoding process based at least in part on the information regarding the determined parameters;

the encoding process generating and transmitting compressed objects at varying rates and/or with varying amounts of compression based on said one or more of rank and prioritization of independent objects to be compressed.

8.   A method for performing an encode and decode of video data for transport over computer networks, the method comprising;

an input device generating an uncompressed video stream, wherein the uncompressed video stream comprises one or more independent video objects comprised of spatial and temporal differences of uncompressed data;

an encoder compressing the one or more independent video objects to produce one or more compressed video objects;

the encoder transmitting the one or more compressed video objects to one or more remote receivers across a network;

the one or more receivers receiving said one or more compressed video objects;

at least one remote receiver determining parameters of the network based on the transport of previously compressed video objects through the network;

the at least one remote receiver generating a signal indicative of the parameters of the network;

the at least one remote receiver transmitting the signal indicative of the parameters of the network to the encoder;

the encoder dynamically adjusting an output bit rate of newly compressed video objects based on the signal indicative of the parameters of the network.

9.   The method of claim 8,

wherein the one or more remote receivers comprise a plurality of remote receivers;

wherein each of the plurality of remote receivers performs said determining parameters, said generating a signal, and said transmitting the signal to the encoder;

wherein the encoder dynamically adjusts an output bit rate of newly compressed video objects based on a plurality of signals indicative of the parameters of the network received from respective ones of the plurality of receivers.